STATEMENT OF BASIS
PACIFIC STATES CAST IRON COMPANY
RENEWAL PERMIT
UPDES PERMIT NUMBER: UT0000612
MINOR INDUSTRIAL

FACILITY CONTACTS

Person Name: John Balian
Position: General Manager

Person Name: David Georgeson
Position: Environmental Manager

Facility Name: Pacific States Cast Iron Pipe Company
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Actual Address: 2550 South Industrial Parkway, in Provo

DESCRIPTION OF FACILITY

Pacific States Cast Iron Pipe Company (PSCIPCO) operates a ductile iron foundry; there is a landfill also located on site for disposal of non-hazardous solid waste. PSCIPCO's operations are located at 2550 South Industrial Parkway, in Provo, Utah at latitude 40°N11'54" and longitude 111°W38'00". PSCIPCO s Standard Industrial Classification (SIC) code is 3321 for cast iron foundries.

PSCIPCO produces cement lined ductile iron pipes used in the drinking water industry. Scrap iron is melted in a cupola furnace, poured into molding machines, cooled, then cement coated. Wastewater, contained on site, is generated from hydrostatic testing of the pipe and during the process of cement lining the pipe.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Monitoring of copper, lead, and zinc was eliminated during the previous permit cycle based on data demonstrating that these metal concentrations were below the corresponding waste load analysis. To confirm that monitoring is still not required (and at Division of Water Quality's request), PSCIPCO provided recent representative samples of effluent from Outfall 001, all of which exhibited concentrations below detection for these metals.

The thermal load calculations have been revised to reflect current conditions; Reilly Industries has not renewed its authorization to discharge to the Ironton Canal. The thermal loading is, therefore, calculated reflecting existing UPDES permit contributions and resulting in a revision to PSCIPCO's authorized load allocation.

In an effort to better address the needs of the watershed and increase efficiency, the DWQ has recently begun consolidating permits. Therefore, in addition to the discharge provisions, the renewal permit for PSCIPCo will include provisions for storm water discharge. Accordingly, the storm water permit requirements (along with all monitoring obligations) for PSCIPCO (including the co-located landfill) are incorporated into this UPDES permit (and the required storm water pollution prevention plan).

DISCHARGE

DESCRIPTION OF DISCHARGE

PSCIPCo has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. A summary of the last 3 years of data is attached and there were only minor discharge violations. PSCIPCO had one violation for total suspended solids and one for their thermal limit. Three years of state monitoring data have been attached to this Statement of Basis. Other than the above mentioned infractions, PSCIPCO has been able to meet permit limits.

PSCIPCO's authorized discharges of process water are generated from the non-contact cooling of the cupola and casting machines, i.e., the "cooling water," which is discharged into an on-site holding pond. The cooling water is mixed in the holding pond with water from the Boardman spring. Discharges from the pond to the Ironton Canal are permitted as Outfall 001.

PSCIPCO currently operates a closed system for all other process water generated from its operations. This process water, referred to as "basement water," originates underneath the pipe mold casting machines in a basement or cellar to cool "over-iron" during production. This water is circulated through on-site holding ponds (distinct from the holding pond associated with the UPDES discharge of the noncontact cooling and spring water) and reintroduced to the basement. There are no outfalls associated with "basement water." PSCIPCO is currently working with the Division of Water Quality to evaluate alternative process water management systems that may include active treatment and discharge to a publicly owned treatment works (POTW) or to receiving water. These projects, along with potential permit changes associated with other possible operational changes, could result in permit modifications or additions during this permit term.

Outfall	Description of Discharge Point
001	Located at latitude 40°11'59" and longitude 111°37'52". The discharge flows into Ironton Canal thence into the Utah Lake. The Ironton Canal is classified 2B, 3C and 4 at this location according to *Utah Administrative Code (UAC) R317-2-13*.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into Ironton Canal thence into the Utah Lake. The Ironton Canal is classified 2B, 3C and 4 at this location according to *Utah Administrative Code (UAC) R317-2-13*.…

Class 2B	-Protected for secondary contact recreation such as boating, wading, or similar uses.
Class 3C	-Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 -Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

The total suspended solids (TSS) and pH limits are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. Based on Best Professional Judgment (BPJ), oil and grease shall not be monitored unless sheen on the effluent is visible. If an oil and grease sample is taken, it shall not exceed 10 mg/L as a daily maximum.

DWQ has evaluated the temperature of the noncontact cooling water discharge from Outfall 001. Utah water quality standards for the receiving waters, i.e., *UAC R317-2-14*, *Table 2.14.2*, limit temperature to the maximum in the stream of 27°C and no more than a 4°C temperature change. The permittee will monitor Temperature (T_{eff}, °C) and flow (Q_{eff}, MGD) and will calculate the thermal discharge according to the following equations:

Summer $Q_{eff}(T_{eff} - 22.7)15.0 \leq 477.2$ mmBtu/day

Fall/Spring $Q_{eff}(T_{eff} - 22.7)15.0 \leq 477.2$ mmBtu/day

Winter $Q_{eff}(T_{eff} - 16.6)15.0 \leq 582.0$ mmBtu/day

Based on effluent monitoring data and the existing treatment facility, the permittee is expected to be able to comply with these limitations. The Wasteload Analysis indicates that these limitations should be sufficiently protective of water quality, in order to meet State standards in the receiving waters.

Parameter	Effluent Limitations			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
TSS, mg/L	25	35	NA	NA
Temperature, mmBtu/day				
Summer	NA	NA	NA	477.2
Fall, Spring	NA	NA	NA	477.2
Winter	NA	NA	NA	582.0
Oil & Grease, mg/L	NA	NA	NA	10.0
pH, Standard Units	NA	NA	6.5	9.0

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit. The permit will require reports to be submitted monthly and quarterly, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be attached to the biomonitoring DMR.

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Flow	Weekly	Measured	MGD
TSS, Effluent	Monthly	Grab	mg/L
Temperature[1]	Weekly	Grab	°C
Oil & Grease[2]	Monthly	Grab	mg/L
pH	Monthly	Grab	SU

[1]Thermal Loading

The thermal discharge shall be calculated using the following equations where effluent temperature, T_{eff}, and flow, Q_{eff}, are variable:

Summer	$Q_{eff}(T_{eff} - 22.7)15.0 \leq 477.2$ MBTU/day
Fall/Spring	$Q_{eff}(T_{eff} - 22.7)15.0 \leq 477.2$ MBTU/day
Winter	$Q_{eff}(T_{eff} - 16.6)15.0 \leq 582.0$ MBTU/day

[2]Sample only if sheen is observed.

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes.

See Definitions, *Part VI*, for definition of terms.

N/A - Not Applicable

STORM WATER

STORMWATER REQUIREMENTS

Storm water provisions are included in this combined UPDES permit.

The storm water requirements are based on the UPDES Multi-Sector General Permit for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000 (MSGP). All sections of the MSGP that pertain to discharges from wastewater treatment plants have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the plant. Elements of this plan are required to include: 1. The development of a pollution prevention team: 2. Development of drainage maps and materials stockpiles: 3. An inventory of exposed materials: 4. Spill reporting and response procedures: 5. A preventative maintenance program: 6. Employee training: 7. Certification that storm water discharges are not mixed with non-storm water discharges: 8. Compliance site evaluations and potential pollutant source identification, and: 9. Visual examinations of storm water discharges.

PSCIPCo is currently covered under the UPDES Multi Sector General Permit for Industrial Activities.

PRETREATMENT REQUIREMENTS

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer, either as direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to *Section 307* of the *Clean Water Act*, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in *40 CFR 403* and the State Pretreatment Requirements found in *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity (WET) Control (Biomonitoring (2/1991))*. Authority to require effluent biomonitoring is provided in *UAC R317-8, Utah Pollutant Discharge Elimination System* and *UAC R317-2, Water Quality Standards*.

PSCIPCO is a minor industrial facility that discharges non-contact cooling water, in which toxicity is not likely to be present. Based on these considerations, there is no reasonable potential for toxicity in PSCIPCO's discharge (per *State of Utah Permitting and Enforcement Guidance Document for WET Control)*. As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by
Daniel Griffin, Discharge
Tom Rushing, Storm Water
Utah Division of Water Quality

_____, _____
TMDL Section Date